

REMARKS

This responds to the Office Action dated January 11, 2010.

Claims 1, 22, and 43 are amended, claim 44 is canceled, and no claims are added. As a result, claims 1, 3-10, 13-15, 22, 24, 26, 28, 30-31, 43, 45, and 47 are currently pending in this application.

Specification Objections

The disclosure is objected to because it allegedly contains an embedded hyperlink <http://jakarta.apache.org/ant> on page 2, line 9. Applicant fails to identify the objected to hyperlink on page 2 of the disclosure, and assume that the specification objection in the Office Action contains a typographical error and that the objection is with respect to an embedded hyperlink on page 66 of the specification. Paragraph [0160] on page 66 of the disclosure is therefore amended to remove the embedded hyperlink.

Applicant thus requests withdrawal and reconsideration of the specification objection.

The Rejection of Claims Under § 101

Claims 43-45 and 47 are rejected under 35 U.S.C. 101 because the claimed invention is allegedly directed to non-statutory subject matter.

Applicant submits that the claims are directed to statutory subject matter but have nevertheless amended the claims to expedite prosecution and allowance of the application, and not for reasons of patentability. Independent claim 43 is amended to specify that one or more of the operations comprising the method are performed by one or more processors. At least some of the operations of the claimed method therefore inherently require a machine/apparatus, and 43, 45 and 47 consequently recite a structural tie to a statutory class of invention.

It is therefore respectfully submitted that claims 43, 45, and 47 are directed to statutory subject matter, and Applicant thus respectfully requests reconsideration and withdrawal of the rejection of these claims under 35 U.S.C. § 101.

The Rejection of Claims Under § 112

Claims 13-15, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 13-15 were rejected for the use of the trade name "Java." Applicant respectfully traverses.

The MPEP provides that "the presence of a trademark or trade name in a claim is not, *per se*, improper under 35 U.S.C. § 112, but the claim should be carefully analyzed to determine how the mark or name is used in the claim."¹ In the present instance, claims 13-15 recite that byte code instructions may be Java compatible. Rather than specifying the commercial source of a particular claim element, the claims in question recite that particular instructions are to be compatible with a programming language which is widely used and is considered a *de facto* standard.² Clearly, specifying a commonly used standard with which elements of a claimed system is to be consistent does not render the claim indefinite, and the Applicant therefore respectfully requests withdrawal and reconsideration of the rejection of claims 13-15 under 35 U.S.C. § 112.

Claim 44 is canceled, and the rejection under § 112 is therefore moot.

The Rejection of Claims Under § 103

Claims 1, 3-5, 7, 9-10, 13-15, 22, 24, 26, 28, 30-31, 43-45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berry et al. (US 6,742,178 B1 hereafter "Berry") in view of Avakian (US 7,484,209 B2 hereafter "Avakian"). Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berry in view of Avakian, further in view of Bak (US 2003/0093779 A1).

However, since a *prima facie* case of obviousness has not been properly established by the Office, Applicant respectfully traverses the rejection of these claims.

¹ MPEP 2173.05(u).

² [http://en.wikipedia.org/wiki/Java_\(programming_language\)](http://en.wikipedia.org/wiki/Java_(programming_language))

1) *The Applicable Law*

As discussed in *KSR International Co. v. Teleflex Inc. et al.* (U.S. 2007), the determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence.³ The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*⁴: (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

Therefore, the test for obviousness under §103 must take into consideration the invention as a whole.⁵ The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art.⁶

KSR v. Teleflex provides a tripartite test to evaluate obviousness. “A rationale to support a conclusion that a claim would have been obvious is that ***all the claimed elements were known*** in the prior art and one skilled in the art could have combined the elements as claimed by known methods ***with no change in their respective functions***, and ***the combination would have yielded nothing more than predictable results*** to one of ordinary skill in the art.”⁷

2) *Application of § 103 to the Rejected Claims*

Applicant respectfully submits that the Office Action’s factual findings of disclosure by the above-listed references of the claim elements are erroneous in respect of at least some of the claim elements. The Office Action’s rationale for obviousness of the claims is consequently flawed. Furthermore, independent claims 1, 22, and 43 are non-obvious under the guidance of *KSR*, as the cited references do not disclose all the claimed elements of respective independent claims.

³ See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 7, 1336-37 (Fed. Cir. 2005).

⁴ 383 U.S. 1, 17 (1966).

⁵ See MPEP 2141.02 I, citing, *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

⁶ See *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), reh'g denied, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).

⁷ See *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007)). Emphasis added.

For example, claim 1 recites, in part:

modifying a classfile after said classfile has been compiled from a source code version of the software application...;

compiling results of the modified classfile and *providing the results to a graphical user interface* to create a *graphical representation* of the results, the results including method information, the graphical representation of the method information including *a dependency hierarchical tree* indicating dependency order of the methods, and *a time hierarchical tree indicting chronological order of the methods*; and

filtering the method information, via a filtering module, according to user preferences and the dependency and time hierarchical trees.⁸

A Graphical Representation

The Office Action asserts that Berry teaches the claim element of “*providing the results to a graphical user interface to create a graphical representation of the results*,” and references in this regard col. 8:1-10 of Berry, quoting in support the extract “... *profiling information report with the compiled method mapping file*...”⁹ Applicant respectfully traverses.

It is not clear what aspects of Berry the Office Action interprets as representing a graphical representation of the results. From the above-quoted extract, it appears that the Office Action considers either the profiling information report or the method mapping file of Berry to be equivalent to a graphical representation of the results consistent with claim 1. Applicant submits, however, that neither of these is “a graphical representation.”

First, the term “mapping” in Berry is used not to describe a visual representation, but consistently has the alternative meaning of “*a relation between two sets in which one element of the second set is assigned to each element of the first set*.”¹⁰ See for example the following representative extracts from Berry:

As also discussed above, methods are identified by major and minor codes in the profiling information report and the HDF file contains the mappings between method names and method major and minor codes for the instrumented class.¹¹

⁸ Emphasis added.

⁹ Office Action, page 6, last paragraph.

¹⁰ <http://dictionary.reference.com/browse/map>

¹¹ Berry, column 6, lines 22-26.

In an effort to alleviate the above-mentioned shortcomings, method name to major and minors codes mappings are included in the class file itself.¹²

Secondly, reports (which include the above described mappings) generated by Berry are table format reports of structured data, and are not “graphical representations” consistent with claim 1. See for example the following extract from Berry:

The postprocessing report that is generated by merging trace data trace records with mapping information trace records is identical to the postprocessing report described above which is generated by merging trace data records with an HDF file. The merged postprocessing report generated from the trace record file 500 in FIG. 5 is illustrated below.¹³

major	minor	timestamp	description
12	1	15:985860940	Dispatch thread: e18507a0
22	1	15:985833507	ENTRY: TEST.method_X(1)
12	1	15:985845671	Dispatch thread: e17d5bb0
12	1	15:985860940	Dispatch thread: e1807a0
22	81	15:985833507	EXIT: TEST.method_X_exit
22	2	15:985833507	ENTRY: TEST.method_Y()
22	82	15:985833507	EXIT: TEST.method_Y_exit

Clearly, the above-quoted postprocessing report is not a graphical representation of the results consistent with claim 1. Applicant therefore submits that, contrary to the Office Action, Berry does not teach or suggest the claim element of a graphical user interface to create a graphical representation of the results.

Dependency Hierarchical Tree

The Office Action contains contradictory statements regarding whether or not Berry discloses the claim element of “a dependency hierarchical tree indicating dependency order of the methods.” The Office Action first asserts that Berry teaches this claim element,¹⁴ but it then asserts that “Berry does not explicitly disclose dependency hierarchical tree [sic].”¹⁵ Applicant agrees with the latter of these statements, namely that Berry does not disclose a dependency

¹² Id., lines 57-60.

¹³ Id., column 9, lines 22-39.

¹⁴ Office Action, page 7, lines 2-5.

¹⁵ Id., page 8, lines 1-2.

hierarchical tree, and notes that a dependency hierarchical tree consistent with claim 1 is part of a graphical representation of results. Because Berry does not disclose a graphical representation, as argued above, it logically also does not disclose a dependency hierarchical tree. In this regard, claim 1, as amended, clearly recites that the dependency hierarchical tree is included in the graphical representation of the method information.

Applicant, however, respectfully disagrees with the Office Action's position that Avakian teaches the claim element of a dependency hierarchical tree,¹⁶ and emphasizes that Avakian does not teach or suggest a ***graphical representation including*** a dependency hierarchical tree. A portion of Avakian which is referenced by the Office Action in support of its position reads as follows:

In some cases, a method of a COM object invoked to perform a selected business logic may invoke methods of other COM objects within a single thread of execution to request performance of selected tasks, e.g., obtaining data from a database. ***Hence, a hierarchical chain of dependency among a plurality of COM objects can be created in which each COM object is a parent and/or a child of another COM object.*** For example, with reference to FIG. 28, an exemplary COM object 2140, which is instrumented by a wrapper object 2140a, can spawn a child COM object 2142, which is instrumented by a wrapper object 2142a. The COM object 2142 in turn invokes, via its wrapper object 2142a, another COM object 2144, which is also instrumented by a wrapper object 2144a.¹⁷

As can be seen from the above-quoted extract, Avakian discloses a hierarchical structure of computer code and objects. However, it is to be noted that claim 1 recites not merely such a hierarchical structure in computer code, but recites a “***graphical representation... including a dependency hierarchical tree indicating dependency order of the methods.***” Neither the above-referenced extract from Avakian, nor any other part of the disclosure of Avakian, describes a graphical representation of method information, let alone a graphical representation including a dependency hierarchical tree indicating dependency order of the methods.

¹⁶ Office Action, page 8, lines 1-7.

¹⁷ Avakian, column 30, lines 4-17; emphasis added.

Time Hierarchical Tree

The Office Action takes the position that Berry discloses the claim element of “*a time hierarchical tree indicating chronological order of the methods*,” and references in this regard disclosure by Berry of the production of a time stamped record.¹⁸ Applicant respectfully disagrees.

The claim element of a time hierarchical tree requires more than merely a time stamped record, as such a time stamped record firstly does not have a hierarchy, and secondly is not arranged in a tree structure.

Furthermore, a time hierarchical tree consistent with claim 1 is recited as forming part of a graphical representation. In contrast, as articulated above, Berry does not teach the graphical representation of method information, and a time stamped record is clearly not a graphical representation of data.

Applicant therefore submits that, contrary to the Office Action’s assertion, Berry does not disclose the claim element of “*a time hierarchical tree indicating chronological order of the methods*.” Avakian does not remedy this deficiency.

Summary

As articulated above, the Office Action's interpretation of the disclosures of Berry and Avakian are erroneous in respect of at least some of the claim elements. The Office Action's rationale for combining the references is therefore flawed.

Furthermore, as neither Berry nor Avakian provide the claim elements discussed above, no combination of these references can provide these elements, and it is therefore asserted that the Examiner failed to establish a *prima facie* case for non-obviousness of claim 1. Independent claims 22 and 43 also include the above-discussed claim elements, and it is thus asserted that no *prima facie* case for non-obviousness of claims 22 and 43 were established.

In addition, any claim depending from a non-obvious independent claim is also non-obvious.¹⁹ Therefore, claims 3-10, 13-15, 24, 26, 28, 30, 31, 45, and 47 are also in condition for

¹⁸ Office Action, page 7, lines 5-8.

¹⁹ See MPEP § 2143.03.

allowance, and Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 1, 3-10, 13-15, 22, 24, 26, 28, 30-31, 43-45, and 47 under 35 U.S.C. § 103(a).

Filing Date: December 30, 2003

Title: MODIFIED CLASSFILE REGISTRATION WITH A DISPATCH UNIT THAT IS RESPONSIBLE FOR DISPATCHING
INVOCATIONS DURING RUNTIME EXECUTION OF MODIFIED BYTECODE

CONCLUSION

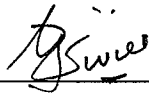
Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (408) 278-4057 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, MN 55402--0938
(408) 278-4057

Date 4/08/2010

By 
Garth Vivier
Reg. No. 57,313

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Dawn R. Shaw

Name

Signature

